What is claimed is

1. A USB controlling apparatus adapted for data transfer between computers, said USB controlling apparatus comprising

a host controller providing a host function of USB interface for said USB controlling apparatus;

a device function circuit providing a device function of USB interface for said USB controlling apparatus;

at least one connection port having a set of USB data lines D+ and D- for connecting to a USB device or a USB cable by way of data transfer; and

a path switch unit connected to said host controller, said device function circuit and said USB data lines, used to switch a connection path of said USB data lines between said host controller and said device function circuit.

2. The USB controlling apparatus as in claim 1, further comprising a power adapting line with a power switch, having one end connected to a power line on a motherboard and another end connected to USB device and USB cable.

3. The USB controlling apparatus as in claim 2, further comprising a series connection of a pull-up resistor and a pull-up switch crossing between said power adapting line and said data line D+.

4. The USB controlling apparatus as in claim 1, wherein said path switch unit is a multiplexer.

5. The USB controlling apparatus as in claim 2, wherein said power switch is transistor circuit.

6. The USB controlling apparatus as in claim 3, wherein said pull-up switch is transistor circuit.

7. The USB controlling apparatus as in claim 3, wherein said path switch is operated in one of manual operation and automatic operation.

8. The USB controlling apparatus as in claim 3, wherein said power switch is turned on and said pull-up switch is turned off when said connection path of said path switch is connected to said host controller.

9. The USB controlling apparatus as in claim 3, wherein said power switch is turned off and said pull-up switch is turned on when said connection path of said path switch is connected to said device function circuit.

10. The USB controlling apparatus as in claim 2, further comprising a series connection of another pull-up resistor and another pull-up switch crossing between said power adapting line and said data line D-.

11. The USB controlling apparatus as in claim 1, further comprising a power switch arranged at a USB power line on a motherboard, said connection port having a power switch controller with output node connected to said power switch in order to

turn on and off said power switch.

12. The USB controlling apparatus as in claim 11, further comprising a pull-up resistor and a pull-up switch in serial connection, said pull-up resistor having one end connected to said power switch and said USB power line, said pull-up switch having one end connected to said data line D+.

13. The USB controlling apparatus as in claim 12, wherein said power switch and said pull-up switch are transistor circuit.

14. A method for said USB controlling apparatus as in claim 3, said method comprising following steps:

setting a host function mode as a default operation mode of said USB controlling apparatus;

detecting whether said connection port is used;

when said connection port is used, said USB controlling apparatus is operated in said host function mode;

when said connection port is not used, said USB controlling apparatus is switched to operate in a device function mode.

15. The method as in claim 14, wherein said data lines are connected to said host controller by said path switch, said power switch is turned on and said pull-up switch is turned off when said USB controlling apparatus is operated in said host function mode.

16. The method as in claim 14, wherein said data lines are connected to said device function circuit by said path switch, said power switch is turned off and said pull-up switch is turned on when said USB controlling apparatus is operated in said device function mode.

17. The method as in claim 14, further comprising following steps:

providing a predetermined waiting time;

detecting whether a connection is established for said USB controlling apparatus;

when said connection is established, said USB controlling apparatus is operated in said device function mode;

when said connection is not established, examining whether said connection is established within said predetermined waiting time.

18. The method as in claim 17, further comprising following steps:

operating said USB controlling apparatus in said device function mode if said connection is established within said predetermined waiting time;

else switching said USB controlling apparatus to said host function mode if said connection is not established within said predetermined waiting time.

19. The method as in claim 18, further comprising following steps:

detecting whether a connection is established for said USB controlling apparatus;

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if true, said USB controlling apparatus is operated in said host function mode;

else examining whether said connection is established within said predetermined waiting time;

operating said USB controlling apparatus in said host function mode when said connection is established within said predetermined waiting time;

switching said USB controlling apparatus to said device function mode when said connection is not established within said predetermined waiting time.

20. The method as in claim 17, wherein said predetermined waiting time is a user-defined value.